AMENDMENTS TO THE CLAIMS

A complete listing of claims appears below. Claims 44, 63, and 79 are amended, Claims 108 – 115 are withdrawn without prejudice, and new Claims 116 - 117 are presented.

1-43. (Canceled).

44. (Currently amended) A method for analyzing ~~an~~ a field-collected arthropod sample for the presence of one or more analytes associated with an arthropod-carried agent that causes a disease in mammals, said method comprising the steps of:

obtaining an arthropod sample suspected of containing arthropod-borne agents;

grinding the sample in a buffered saline solution comprising a non-ionic detergent at a concentration of at least 0.1% to expose at least one analyte associated with the arthropod-carried agent such that the sample contains arthropod debris after grinding;

contacting at least a portion of the solution containing said sample after grinding with a liquid permeable support and at least one detectable analyte-specific reagent that binds to ~~the~~ at least one analyte to form ~~an~~ at least one analyte-reagent complex;

allowing the solution containing said sample to move through the support by capillary flow or wicking until the at least one analyte or analyte-specific reagent or analyte-specific reagent complex binds to at least one capture reagent immobilized on the support; and

detecting the presence of the detectable analyte-specific reagent indicating the presence of the analyte in the sample,

wherein, when a plurality of detectable analyte-specific reagents for a plurality of arthropod-carried agents is employed, the support comprises a plurality of capture reagents immobilized onto a plurality of different detection areas.

45. (Previously Presented) The method of claim 44, wherein the detectable analyte-specific reagent further comprises a detectable moiety selected from the group consisting of a colored moiety, a magnetic moiety, a radioactive moiety and an enzyme.

46. (Previously Presented) The method of claim 44, wherein the detectable analyte-specific reagent is deposited on the support prior to contacting the sample.

47. (Previously Presented) The method of claim 44, wherein at least three detectable analyte-specific reagents for at least three different arthropod-carried agents associated with human malaria are employed and the support comprises at least three capture reagents immobilized onto at least three different detection areas.

48. (Withdrawn) The method of claim 44, wherein the arthropod-carried agent is a togavirus.

49. (Withdrawn) The method of claim 48, wherein the togavirus is an encephalitis virus.

50. (Withdrawn) The method of claim 48, wherein the togavirus is a flavivirus.

51. (Withdrawn) The method of claim 50, wherein the flavivirus is Dengue.

52. (Withdrawn) The method of claim 51, wherein the flavivirus is an encephalitis virus.

53. (Withdrawn) The method of claim 52, wherein the encephalitis virus is West Nile Fever.

54. (Previously Presented) The method of claim 44, wherein the arthropod is a mosquito.

55 (Canceled.)

56. (Previously Presented) The method of claim 44, wherein the support further comprises a control area having immobilized therein at least one reagent suitable for capturing the detectable analyte-specific reagent.

57. (Withdrawn) The method of claim 44, further employing at least two detectable analyte-specific reagents, said reagents specific for a protein associated with *Plasmodium*

falciparum circumsporozoite and a second specific for a protein associated with a *Plasmodium vivax* sporozoite and at least two different detection areas, on area having immobilized therein a capture reagent specific for the protein associated with *Plasmodium falciparum* sporozoite, and the second area having immobilized therein a capture reagent specific for the protein associated with a *Plasmodium vivax* sporozoite.

58. (Withdrawn) The method of claim 44, wherein the *Plasmodium falciparum* sporozoite is a *Plasmodium vivax* 210.

59. (Withdrawn) The method of claim 44, wherein the *Plasmodium falciparum* sporozoite is a *Plasmodium vivax* 247.

60. (Previously Presented) The method of claim 44, wherein the analyte-specific reagents are monoclonal antibodies.

61. (Previously Presented) The method of claim 44, wherein the detectable analyte-specific reagents are gold-antibody conjugates.

62. (Previously Presented) The method of claim 44, wherein the detectable analyte-specific reagents are colored latex-antibody conjugates.

63. (Currently amended) A method for analyzing ~~an~~ a field-collected arthropod sample for the presence of one or more analytes associated with an arthropod-carried agent that causes a disease in mammals, said method comprising the steps of:

obtaining an arthropod sample suspected of containing arthropod-borne agents;

grinding the sample in a buffered saline solution comprising a non-ionic detergent at a concentration of at least 0.1% to expose at least one analyte associated with the arthropod-carried agent such that the sample contains arthropod debris after grinding;

contacting at least a portion of the solution containing said sample after grinding with a dipstick and at least one detectable analyte-specific reagent that binds to at least one analyte to form at least one analyte-reagent complex;

allowing the solution containing said sample to move through the dipstick until the at least one analyte or the analyte-specific reagent or the analyte-specific reagent complex binds to at least one capture reagent immobilized on the dipstick; and

detecting the presence of the detectable analyte-specific reagent indicating the presence of the analyte in the sample,

wherein, when a plurality of detectable analyte-specific reagents for a plurality of arthropod-carried agents is employed, the support comprises a plurality of capture reagents immobilized onto a plurality of different detection areas.

64. (Previously Presented) The method of claim 63, wherein the detectable analyte-specific reagent further comprises a detectable moiety selected from the group consisting of a colored moiety, a magnetic moiety, a radioactive moiety and an enzyme.

65. (Previously Presented) The method of claim 63, wherein the detectable analyte-specific reagent is deposited on the support prior to contacting the sample.

66. (Withdrawn) The method of claim 63, wherein the arthropod-carried agent is a togavirus.

67. (Withdrawn) The method of claim 66, wherein the togavirus is an encephalitis virus.

68. (Withdrawn) The method of claim 66, wherein the togavirus is a flavivirus.

69. (Withdrawn) The method of claim 68, wherein the flavivirus is Dengue.

70. (Withdrawn) The method of claim 68, wherein the flavivirus is an encephalitis virus.

71. (Withdrawn) The method of claim 70, wherein the encephalitis virus is West Nile Fever.

72. (Previously Presented) The method of claim 63, wherein the arthropod is a mosquito.

73. (Previously Presented) The method of claim 63, wherein the sample is homogenized with a grinding solution prior to contact with said support.

74. (Previously Presented) The method of claim 63, wherein the support further comprises a control area having immobilized therein at least one reagent suitable for capturing the detectable analyte-specific reagent.

75. (Previously Presented) The method of claim 63, wherein the analyte-specific reagent is a monoclonal antibody.

76. (Previously Presented) The method of claim 63, wherein the detectable analyte-specific reagent comprises gold-antibody conjugates.

77. (Previously Presented) The method of claim 63, wherein the detectable analyte-specific reagents comprises colored latex-antibody conjugates.

78. (Previously Presented) The method of claim 63, wherein at least three detectable analyte-specific reagents for at least three different arthropod-carried agents associated with human malaria are employed and the support comprises at least three capture reagents immobilized onto at least three different detection areas.

79. (Currently amended) A method for analyzing ~~an~~ a field-collected arthropod sample for the presence of one or more analytes associated with an arthropod-carried agent that causes a disease in mammals, said method comprising the steps of:

obtaining an arthropod sample suspected of containing arthropod-borne agents;

grinding the sample in a buffered saline solution comprising a non-ionic detergent at a concentration of at least 0.1% to expose at least one analyte associated with the arthropod-carried agents such that the sample contains arthropod debris after grinding;

contacting at least a portion of the solution containing said sample after grinding with a panel assay having capture reagents immobilized onto separate areas and

detectable analyte-specific reagents specific for one or more analytes associated with each arthropod-borne agent to which the capture reagents are directed;

allowing the solution containing said sample to move through the panel assay by capillary flow or wicking until the at least one analyte or one of the analyte-specific reagents binds to one of the capture reagents; and

detecting the presence of the analyte-specific reagents indicating the presence of the analyte in the sample,

wherein, when a plurality of detectable analyte-specific reagents for a plurality of arthropod-carried agents is ~~are~~ employed, the support comprises a plurality of capture reagents immobilized onto a plurality of different detection areas.

80. (Previously Presented) The method of claim 79, wherein one of the analyte-specific reagents further comprises a detectable moiety selected from the group consisting of a colored moiety, a magnetic moiety, a radioactive moiety and an enzyme.

81. (Previously Presented) The method of claim 79, wherein one of the detectable analyte-specific reagents is deposited on the support prior to contacting the sample.

82. (Withdrawn) The method of claim 79, wherein one of the arthropod-carried agents is a togavirus.

83. (Withdrawn) The method of claim 82, wherein the togavirus is an encephalitis virus.

84. (Withdrawn) The method of claim 82, wherein the togavirus is a flavivirus.

85. (Withdrawn) The method of claim 84, wherein the flavivirus is Dengue.

86. (Withdrawn) The method of claim 84, wherein the flavivirus is an encephalitis virus.

87. (Withdrawn) The method of claim 86, wherein the encephalitis virus is West Nile Fever.

88. (Previously Presented) The method of claim 79, wherein the arthropod is a mosquito.

89. (Previously Presented) The method of claim 79, wherein the sample is homogenized with a grinding solution prior to contact with said panel assay.

90. (Previously Presented) The method of claim 79, wherein one of the analyte-specific reagents is a monoclonal antibody.

91. (Previously Presented) The method of claim 79, wherein one of the detectable analyte-specific reagents comprises gold-antibody conjugates.

92. (Previously Presented) The method of claim 79, wherein one of the plurality of detectable analyte-specific reagents comprises colored latex-antibody conjugates.

93. (Withdrawn) A method for analyzing an arthropod sample for the presence of one or more analytes associated with an arthropod-borne agent that causes a disease in mammals, said method comprising the steps of:

obtaining an arthropod sample suspected of containing arthropod-borne agents;

grinding the sample in solution to expose an analyte associated with the arthropod-borne agent such that the sample contains arthropod debris after grinding;

contacting the sample containing arthropod debris with a liquid permeable support and at least one detectable analyte-specific reagent that binds to the analyte to form an analyte-reagent complex;

allowing the liquid phase to move through the support by capillary flow or wicking until the analyte or the analyte-specific reagent or the analyte-specific reagent complex binds to at least one capture reagent immobilized on the support; and

detecting the presence of the arthropod-borne agent on the liquid permeable support,

wherein the at least one detectable analyte-specific reagent is specific for one or more malarial analytes associated with *Plasmodium* sporozoite.

94 (Withdrawn) The method of claim 93, wherein the at least one detectable analyte-specific reagent is specific for a protein associated with *Plasmodium falciparum* circumsporozoite and a protein associated with a *Plasmodium vivax* sporozoite.

95. (Withdrawn) The method of claim 94, wherein the *Plasmodium falciparum* sporozoite is a *Plasmodium vivax* 210.

96. (Withdrawn) The method of claim 94, wherein the *Plasmodium falciparum* sporozoite is a *Plasmodium vivax* 247.

97. (Withdrawn) The method of claim 93, wherein the at least one detectable analyte-specific reagent further comprises a detectable moiety selected from the group consisting of a colored moiety, a magnetic moiety, a radioactive moiety and an enzyme.

98. (Withdrawn) The method of claim 93, wherein the detectable analyte-specific reagent is deposited on the liquid permeable support prior to contacting the sample.

99. (Withdrawn) The method of claim 93, wherein a plurality of detectable analyte-specific reagents for a plurality of different arthropod-carried agents associated with human malaria are employed and the liquid permeable support comprises a plurality of capture reagents immobilized onto a plurality of different detection areas.

100. (Withdrawn) The method of claim 93, wherein the arthropod is a mosquito.

101. (Withdrawn) The method of claim 100, wherein the sample is homogenized with a grinding solution prior to contact with the liquid permeable support.

102. (Withdrawn) The method of claim 93, wherein the liquid permeable support further comprises a control area having immobilized therein at least one reagent suitable for capturing the at least one detectable analyte-specific reagent.

103. (Withdrawn) The method of claim 93, wherein the at least one detectable analyte-specific reagent comprises a monoclonal antibody.

104. (Withdrawn) The method of claim 93, wherein the at least one detectable analyte-specific reagent comprises a gold-antibody conjugate.

105. (Withdrawn) The method of claim 93, wherein the at least one detectable analyte-specific reagent comprises a colored latex-antibody conjugate.

106. (Previously Presented) The method of claim 44 wherein said buffered saline solution further comprises at least one of a polypeptide component or an antimicrobial component.

107. (Previously Presented) The method of claim 44 wherein said non-ionic detergent is at least one of NP-40, Tween-20, or Triton X-100.

108. (Withdrawn) A device for analyzing an arthropod sample for the presence of one or more analytes associated with an arthropod-carried agent that causes a disease in mammals, said device comprising:

a sample receiving area for application of a liquid arthropod sample prepared by grinding one or more arthropods suspected of containing arthropod-borne agents in a buffered saline solution comprising a non-ionic detergent;

a conjugate pad in fluid contact with the sample receiving area comprising at least one detectable analyte-specific reagent capable of migrating with the liquid arthropod sample and of binding to at least one analyte to form at least one analyte-specific reagent complex;

and a liquid permeable material in fluid contact with the conjugate pad comprising one or more test sites comprising immobilized capture reagent capable of specifically binding at least one of said analytes or analyte-specific reagent or analyte-specific reagent complex;

wherein, when said liquid arthropod sample is applied to the sample receiving area, the liquid sample migrates via capillary action or wicking through the conjugate pad and the

one or more test sites, and binding of at least one detectable analyte-specific reagent at one or more test sites is detected to indicate the presence of at least one analyte in the sample.

109. (Withdrawn) The device of claim 108, further comprising a control area having immobilized therein at least one reagent suitable for capturing at least one detectable analyte-specific reagent.

110. (Withdrawn) The method of claim 108, wherein the detectable analyte-specific reagent further comprises a detectable moiety selected from the group consisting of a colored moiety, a magnetic moiety, a radioactive moiety and an enzyme.

111. (Withdrawn) The device of Claim 108, further comprising a wick for filtering the liquid arthropod sample.

112. (Withdrawn) A device for analyzing an arthropod sample for the presence of one or more analytes associated with an arthropod-carried agent that causes a disease in mammals, said device comprising:

a sample receiving area for application of a liquid arthropod sample prepared by grinding one or more arthropods suspected of containing arthropod-borne agents in a buffered saline solution comprising a non-ionic detergent and at least one detectable analyte specific reagent that binds at least one analyte to form at least one analyte-specific reagent complex; and

a liquid permeable material in fluid contact with the sample receiving area comprising one or more test sites comprising immobilized capture reagent capable of specifically binding at least one of said analytes or analyte-specific reagent or analyte-specific reagent complex;

wherein, when said liquid arthropod sample is applied to the sample receiving area, the liquid sample migrates via capillary action or wicking through the one or more test sites, and binding of at least one detectable analyte-specific reagent at one or more test sites is detected to indicate the presence of at least one analyte in the sample.

113. (Withdrawn) The device of claim 112, further comprising a control area having immobilized therein at least one reagent suitable for capturing at least one detectable analyte-specific reagent.

114. (Withdrawn) The method of claim 112, wherein the detectable analyte-specific reagent further comprises a detectable moiety selected from the group consisting of a colored moiety, a magnetic moiety, a radioactive moiety and an enzyme.

115. (Withdrawn) The device of Claim 112, further comprising a wick for filtering the liquid arthropod sample.

116. (New) The method of claim 44, 63, or 79, wherein the concentration of non-ionic detergent is greater than 0.2%.

117. (New) The method of claim 44, 63, or 79, wherein the concentration of non-ionic detergent is about 0.5%.